

Bewinner BewiKuo2nxxC0A

Bewinner DC 12V to 24V Boost Converter Instruction Manual

Model: BewiKuo2nxxC0A

1. INTRODUCTION

This manual provides detailed instructions for the safe and efficient use of your Bewinner DC 12V to 24V Boost Converter, Model BewiKuo2nxxC0A. This device is designed to convert a 12V DC input voltage to a stable 24V DC output voltage, suitable for various automotive and industrial applications. Please read this manual thoroughly before installation and operation to ensure proper functionality and safety.

2. SAFETY INFORMATION

Adhering to these safety guidelines is crucial for preventing damage to the converter, connected equipment, and personal injury.

- **Disconnect Power:** Always disconnect the power source before performing any installation, wiring, or maintenance on the converter.
- **Correct Polarity:** Ensure correct polarity when connecting input and output wires. Incorrect wiring can severely damage the device and any connected equipment. Red wires are typically positive (+), and black wires are negative (-).
- **Voltage and Current Limits:** Do not exceed the maximum input voltage of 20V or the maximum output current of 15A (360W). Overloading can lead to overheating and device failure.
- **Ventilation:** Install the converter in a well-ventilated area to facilitate heat dissipation and prevent overheating. Avoid enclosed spaces.
- **DC Systems Only:** This device is designed exclusively for DC power systems. Do not connect it to AC power sources.
- **Temperature:** The aluminum alloy casing may become warm during operation. Avoid prolonged direct contact with the casing.
- **Built-in Protections:** The converter includes built-in protections against overvoltage, undervoltage, overload, overheating, and short circuits. While these features enhance safety, proper installation and usage remain paramount.

3. PRODUCT OVERVIEW

The Bewinner DC 12V to 24V Boost Converter is a compact and robust power conversion solution. Its design

focuses on durability and stable performance across various demanding applications.

Features

- **Maximum 15A 360W:** Supports a maximum current of 15A and 360W with a wide input range of 9V to 20V.
- **Aluminum Alloy Casing:** Features a durable aluminum alloy casing resistant to high temperatures, ensuring longevity and efficient heat dissipation.
- **Wide Application:** Suitable for use in buses, minibuses, large trucks, motorcycles, GPS systems, solar power installations, photovoltaic energy systems, bus displays, taxi advertising screens, LCD TVs, LEDs, and monitoring systems.
- **High Safety:** Incorporates multiple protection mechanisms including overvoltage, undervoltage, overload, overheating, and short circuit protection.
- **Easy to Install:** Compact size and stable performance make it very easy to integrate into existing systems.

Components

The converter consists of a main unit with integrated input and output wiring. The robust aluminum casing protects the internal electronics and aids in cooling.



Figure 1: Top view of the Bewinner DC 12V to 24V Boost Converter, showing the aluminum casing and wire connections.

4. SPECIFICATIONS

Parameter	Value
Brand	Bewinner
Model Number	BewiKuo2nxxC0A

Parameter	Value
Input Voltage Range	9V to 20V DC
Input Voltage Limit	<20V DC
Input Current	>15A (at 12V input)
Output Voltage	24V DC \pm 0.3V
Output Current	15A (Max)
Maximum Power	360W
Material	Aluminum Alloy
Dimensions (approx.)	12 x 12 x 5 cm
Weight (approx.)	309 g

5. SETUP

Follow these steps carefully for proper installation of your DC boost converter.

Installation Steps

1. Step 1: Preparation

Ensure all power sources are disconnected from both the input (12V DC) and output (24V DC) systems. Identify the appropriate wiring points on your vehicle or system for both input and output connections.

2. Step 2: Mounting

Mount the converter securely in a dry, well-ventilated location. Use the integrated mounting holes on the casing to fasten the unit. Ensure there is adequate space around the unit for air circulation to prevent heat buildup.





Figure 2: Side view of the converter, highlighting the mounting holes for secure installation.

3. Step 3: Wiring Input

Connect the input wires from your 12V DC power source to the converter. The red wire is for the positive (+) terminal, and the black wire is for the negative (-) terminal. Ensure these connections are secure, tight, and properly insulated to prevent short circuits.

4. Step 4: Wiring Output

Connect the output wires from the converter to your 24V DC device or system. Again, the red wire is positive (+) and the black wire is negative (-). Double-check the polarity before making final connections to avoid damaging your equipment.

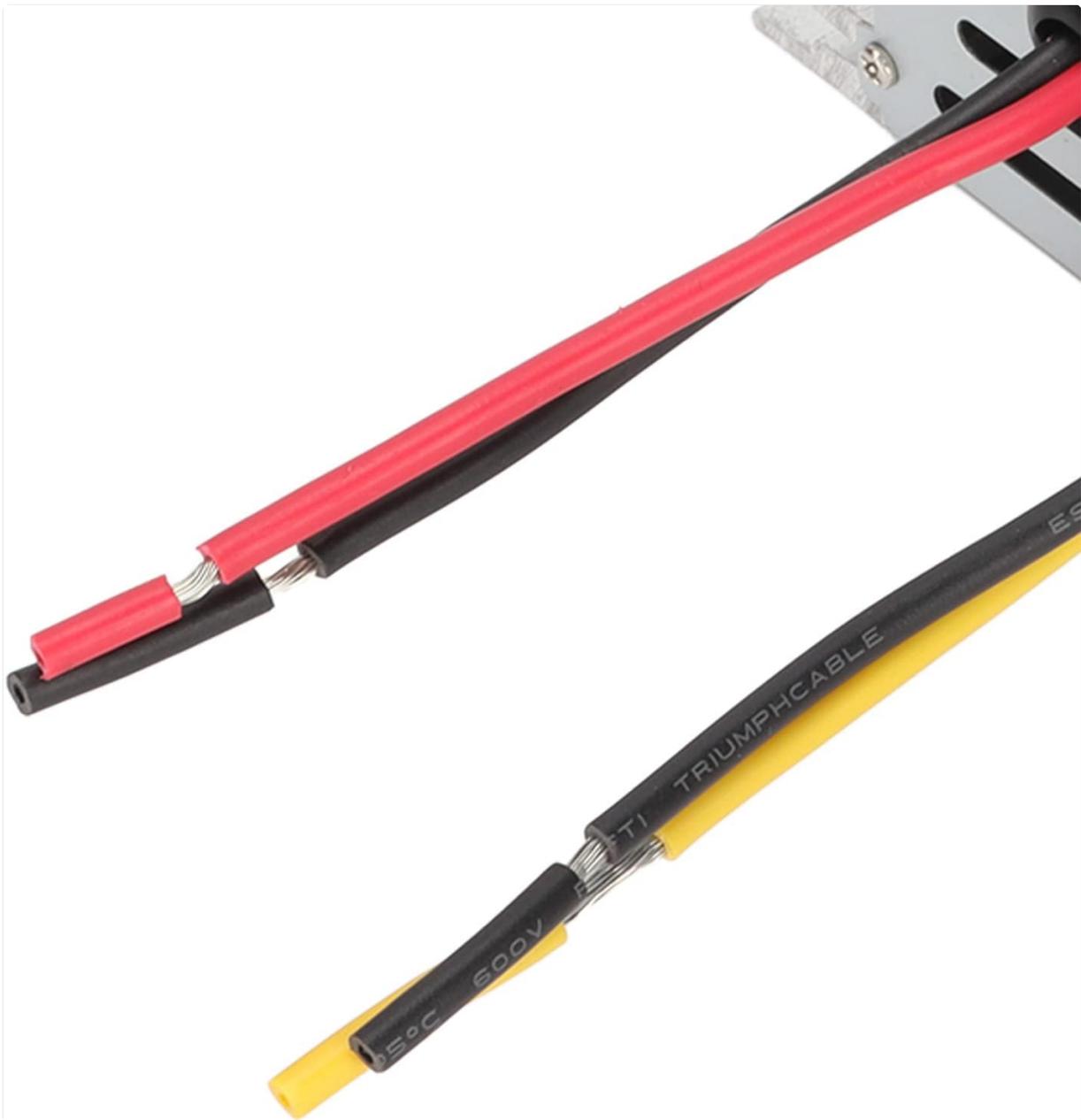


Figure 3: Close-up view of the input (yellow/black) and output (red/black) wires, showing proper insulation and connection points.

5. Step 5: Final Check

Before applying power, thoroughly verify all wiring connections. Confirm that they are tight, correctly polarized, and free from any potential short circuits.

6. OPERATING INSTRUCTIONS

Once properly installed and wired according to the setup instructions, the Bewinner DC 12V to 24V Boost Converter operates automatically. Simply apply 12V DC power to the input, and the converter will provide a stable 24V DC output to your connected devices. No further user intervention is typically required during operation. Monitor the performance of your connected devices to ensure proper operation and that they are receiving the correct voltage and current.

7. MAINTENANCE

Regular maintenance helps ensure the longevity and reliable performance of your converter.

- **Connection Inspection:** Periodically inspect all wiring connections for tightness, signs of wear, corrosion,

or damage. Loose connections can lead to power loss or overheating.

- **Cleaning:** Keep the converter's aluminum casing clean and free from dust, dirt, and debris. A clean casing ensures efficient heat dissipation, which is vital for the unit's performance and lifespan. Use a dry, soft cloth for cleaning.
- **No User Serviceable Parts:** Do not attempt to open or service the internal components of the unit. There are no user-serviceable parts inside. Refer any repairs or internal issues to qualified service personnel.

8. TROUBLESHOOTING

If you encounter issues with your converter, refer to the following troubleshooting guide:

Problem	Possible Cause	Solution
No output voltage	No input power Incorrect wiring polarity Loose connections Input voltage outside range (9V-20V)	Check if 12V DC input power is present. Verify input and output wiring polarity (red to +, black to -). Tighten all connections. Ensure input voltage is within the specified range.
Output voltage incorrect	Overload on output Faulty wiring or damaged cables	Reduce the load to ensure it does not exceed 15A/360W. Inspect all cables for damage and replace if necessary.
Converter overheating	Insufficient ventilation Excessive load Short circuit in output wiring	Ensure adequate airflow around the unit. Reduce the load to stay within 15A/360W. Check for any short circuits in the connected output devices or wiring.

9. WARRANTY AND SUPPORT

For detailed warranty information and technical support, please refer to the product packaging or contact your original retailer. It is recommended to keep your purchase receipt as proof of purchase for any warranty claims. Do not attempt to repair the device yourself, as this may void the warranty.